

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-27 are presently active in this case. Claims 1, 8, 16 and 19 are amended by the present amendment.

Claim amendments find support in the specification as originally filed at least at page 16, line 11, to page 17, line 6, page 19, line 16, to page 22, line 10, and Figures 4A and 7. Thus, no new matter is added.

In the outstanding Office Action, the specification was objected to; Claim 18 was objected to; Claims 1, 2, 5, 8-10, 13, 16, 19 and 22-27 were rejected under 35 U.S.C. § 103(a) as anticipated by U.S. Patent No. 6,593,935 to Imaizumi et al. (herein “Imaizumi”) in view of U.S. Patent No. 6,144,763 to Ito and U.S Patent No. 5,018,008 to Asada; Claims 3 and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over Imaizumi in view of Ito, Asada and U.S. Patent No. 5,740,277 to Katto; Claims 4 and 12 were rejected under 35 U.S.C. § 103(a) as unpatentable over Imaizumi in view of Ito, Asada and U.S. Patent No. 6,118,552 to Suzuki et al. (herein “Suzuki”); and Claims 6, 7, 14, 15, 17, 18, 20 and 21 were rejected under 35 U.S.C. § 103(a) as unpatentable over Imaizumi in view of Ito, Asada and U.S. Patent No. 5,990,876 to Shyu.

Regarding the objections to the specification and Claim 18, the specification and Claim 18 were amended as suggested in the outstanding Office Action in the response filed July 21, 2005. Accordingly, it is respectfully requested those objections be withdrawn.

In addition, Applicants respectfully traverse the rejection of Claims 1, 2, 5, 8-10, 13, 16, 19 and 22-27 under 35 U.S.C. § 103(a) as anticipated by Imaizumi in view of Ito and Asada, with respect to amended independent Claims 1, 8, 16 and 19.

Amended Claim 1 is directed to a device for processing images that includes, *inter alia*,

a distribution-measurement unit that measures a distribution of a plurality of color components by counting a number of pixels of an encoded image data whose color components belong to each area of a color space. The device also includes a memory-control unit that releases a memory space assigned to a part of the encoded image data and records data indicative of one of the areas on which the distribution concentrates in a memory unit in response to a detection by the distribution-measurement unit that the distribution concentrates on the area.

Independent Claims 8, 16 and 19 include similar features.

In a nonlimiting example, Applicants' Figure 1 shows a device for processing images including an image coding unit 11, an image decoding unit 12, a memory unit 13, a distribution-measurement unit 14, and a memory-control unit 15. Red/Green/Blue color (RGB) image data read by a scanner, for example, is encoded and compressed by the image coding unit 11 to produce fixed length codes, which are stored in the memory unit 13. Applicants' Figure 3 shows an example of encoded image data stored in the memory unit 13 in a case in which a two pixel by two pixel block with 8 bits per pixel is processed with respect to each of the RG and B colors.

In the encoded image data, the luminance signal Y includes 16 bits, the color information Cb includes 8 bits and the color information Cr includes 8 bits. The distribution-measurement unit 14 measures the distribution of the chrominance component Cb and Cr over the entire image and checks whether the obtained distribution has a concentration within a predetermined range. For example, a check is made to determine whether the distribution concentrates on a particular composition of color components. If the distribution concentrates on a particular composition of chrominance components, it is reasonable to ascertain that the input image is a monochrome image.

Thus, in response to a determination that the distribution concentrates on a particular composition of chrominance components (e.g., an area of the color space in which the

distribution concentrates), the memory-control unit releases the memory space assigned to the color information Cb and Cr.

Applicants respectfully submit that the combined disclosures of Imaizumi, Ito, and Asada do not teach or suggest each of the features of the amended independent claims. In particular, the references do not teach or suggest that a memory space is released in response to a detection that a distribution concentrates on an area of the color space. As noted in the Advisory Action mailed August 11, 2005, Ito describes a code amount controller 36 that releases memory when a monochrome mode is selected.<sup>1</sup> In other words, Ito describes releasing memory in response to a command, but Ito does not describe releasing any memory in response to a detection of any distribution concentration. Thus, Ito and the other cited references do not teach or suggest “a memory-control unit configured to release the at least one memory space assigned to the part of the encoded image data . . . in response to a detection by said distribution-measurement unit that the distribution concentrates on said one of the areas,” as recited in amended Claim 1, and as similarly recited in amended Claims 8, 16 and 19.

Further, Applicants respectfully submit that the cited references do not teach or suggest recording data indicative of an area of the color space in a memory unit in response to a detection that a distribution concentrates on the area. Asada describes correcting a standard color separation rule if a ratio of pixels in a certain color is greater than a threshold value.<sup>2</sup>

However, although Asada notes that the standard color separation rule is stored in a memory 10, Asada does not teach or suggest that any corrected color separation rule is stored in memory and also does not indicate that a corrected color separation rule includes any data indicative of a particular color area. In other words, Asada does not describe recording information indicative of an area of the color space in response to a detection of a distribution concentration. Thus, Applicants respectfully submit that Asada and the other cited references

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<sup>1</sup> Advisory Action at numbered paragraph 11.

do not teach or suggest "a memory-control unit configured . . . to record data indicative of one of the areas on which the distribution concentrates in said memory unit in response to a detection by said distribution-measurement unit that the distribution concentrates on said one of the areas," as recited in amended Claim 1, and as similarly recited in amended Claims 8, 16 and 19.

Accordingly, Applicants respectfully submit that independent Claims 1, 8, 10 and 19, and claims depending therefrom, patentably define over Imaizumi, Ito and Asada, whether taken individually or in combination.

In addition, Applicants respectfully traverse the rejections of Claims 3, 4, 6, 7, 11, 12, 14, 15, 17, 18, 20 and 21 as unpatentable over Imaizumi in view of Ito, Asada and Katto or Suzuki or Shyu.

Claims 3, 4, 6, 7, 11, 12, 14, 15, 17, 18, 20 and 21 depend from independent Claims 1, 8, 16 or 19, which as discussed above are believed to patentably define over Imaizumi, Ito and Asada. Further, Applicants respectfully submit that none of Katto, Suzuki or Shyu teach or suggest the claimed features lacking in the disclosures of Imaizumi, Ito and Asada, as described above. Accordingly, it is respectfully requested those rejections be withdrawn.

Accordingly, it is respectfully submitted that independent Claims 1, 8, 16 and 19, and claims depending therefrom, are allowable.

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<sup>2</sup> Asada at column 9, lines 9-40.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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